AMENDMENTS TO THE CLAIMS

Claim 1. (currently amended): An image processing method, comprising: ~~the steps of:~~

~~operating on a pixel-by-pixel basis texture coordinates and LOD (Level of Detail) values from object data;~~

obtaining, for a pixel, a set of texture coordinates comprising a first texture coordinate in a first dimension and a second texture coordinate in a second dimension, and a set of level of detail (LOD) values comprising a first LOD value in said first dimension and a second LOD value in said second dimension;

determining, for said pixel, ~~based on the LOD values~~ a filtering domain comprising a first number of texels along said first dimension and a second number of texels along said second dimension in a texture comprising ~~of~~ texels read from a texture memory; ~~and~~

~~acquiring a weighted average depending on said texture coordinates and the size of said determined filtering domain to create a texture color to be pasted to said object.~~

calculating a texture color as a weighted average of color values from texels in said filtering domain; and

pasting said texture color to said pixel;

wherein said first and second numbers are respectively related to said first and second LOD values.

Claims 2-3 (cancel):

Claim 4. (currently amended): The image processing method according to claim 1, wherein said step of determining comprises:

adding a predetermined offset to said first LOD value and said second LOD value. ~~in the process of determining said texel filtering domain, an offset value is added with a predetermined preset parameter to modify said LOD values.~~

Claim 5. (currently amended): The image processing method according to claim 1, wherein in said step of determining the filtering domain, one of said first and second LOD values is first selected based on a parameter designating a method of selection of one mipmap from a plurality of mipmaps stored in the texture memory, and then the one of the plurality of mipmaps is selected according to the selected one of the first and second LOD values. ~~the process of determining said filtering domain, depending on said LOD values and a parameter for designating the manner of selecting a plurality of mipmap data, one of the plurality of mipmap data stored in the texture memory is selected.~~

Claim 6. (currently amended): The image processing method according to claim 1, wherein at least one of said first and second numbers are also related to a state of a flag. ~~wherein in the process of determining said filtering domain, the number of texels required to acquire a texture color is determined in accordance with a predetermined flag.~~

Claim 7. (currently amended): The image processing method according to claim 5, wherein ~~one of said first and second LOD values is selected and used for determining the filtering domain, corresponding to the parameter designating a method of selection of one mipmap from a plurality of mipmaps, according to a parameter, which designates whether or not either one of the first and second LOD values is used.~~ in the process of determining the filtering domain, depending on a parameter for selecting whether or not a plurality of values of said LOD values are to be unified to any one, said LODs are unified to any one in compliance with said parameter for designating the manner of selecting said plurality of mipmap data.

Claim 8. (currently amended): An ~~The~~ image processing method comprising: ~~according to claim 1, wherein~~

on a pixel-by-pixel basis:

     obtaining texture coordinates and a plurality of level of detail (LOD) values from an object data;

     determining a filtering domain of texels read from a texture memory based on the LOD values; and

     calculating a weighted average based on said texture coordinates and a size of said filtering domain to create a texture color to be pasted to said object;

wherein said step of calculating ~~acquiring~~ said weighted average ~~includes:~~ comprises:

acquiring a blend ratio and a decision flag in said filtering domain from said texture coordinates and said filtering domain;

deciding, by said decision flag, texels to be excluded from the ~~object for acquiring~~ the weighted average, out of said texels read from said texture memory; and

acquiring the weighted average of said texels ~~as the object~~ in accordance with said blend ratio.

Claim 9. (currently amended): The image processing method according to claim 8, wherein said step of determining said filtering domain further includes:

modifying said LOD values with a predetermined parameter and determining a final filtering domain based on a flag indicative of how many texels are to be used to acquire a texture color; and

in case of selecting a mode of four texels by said flag indicative of how many texels are to be used to acquire a texture color, setting said decision flag corresponding to which one of four-divided domains of [[a]] texels positioned centrally of nine texels contains the center point of said filtering domain.

Claim 10. (original): The image processing method according to claim 8, wherein said step of determining said filtering domain further includes:

modifying said LOD values with a predetermined parameter, and determining a final filtering domain based on a flag indicative of how many texels are to be used to acquire the texture color; and

in case of selecting a mode of nine texels by said flag indicative of how many texels are to be used to acquire the texture color, indicating said blend ratio and decision flag correspondingly to four areas into which said nine texels are divided by lines passing through the center of said filtering domain, a first one of said four areas containing the upper left vertex of said filtering domain, a second one of said four areas containing the upper right vertex of said filtering domain, a third one of said four areas containing the lower left vertex of said filtering domain, and a fourth one of said four areas containing the lower right vertex of said filtering domain.

Claim 11. (currently amended): The image processing apparatus, comprising:

a circuit for <u>receiving, for a pixel, a set of texture coordinates comprising a first texture coordinate in a first dimension and a second texture coordinate in a second dimension, and a set of level of detail (LOD) values comprising a first LOD value in said first dimension and a second LOD value in said second dimension;</u> operating texture coordinates and LOD (Level of Detail) values on a pixel-by-pixel basis from object data;

a circuit for determining<u>, for said pixel,</u> a filtering domain <u>comprising a first number of texels along said first dimension and a second number of texels along said second dimension, in a texture comprising</u> of [[a]] texel<u>s</u> read from a texture memory<u>;</u>[[,]] based on said operated LOD values; and

a circuit for <u>calculating</u> ~~acquiring~~ <u>a texture color as</u> a weighted average <u>of color values</u> <u>from texels in said filtering domain; and</u> ~~in compliance with said determined texture~~ ~~coordinates and the size of said filtering domain.~~

<u>a circuit for pasting said texture color to said pixel;</u>

<u>wherein said first and second numbers are respectively related to said first and second</u> <u>LOD values.</u>

Claims 12-13. (cancel):

Claim 14. (currently amended): The image processing apparatus according to claim 11, wherein said circuit for determining ~~a domain for filtering said texel~~ adds ~~up an~~ <u>a</u> <u>predetermined</u> offset ~~value with a predetermined preset parameter~~ to ~~modify~~ said <u>first</u> <u>and second</u> LOD values.

Claim 15. (currently amended): The image processing apparatus according to claim 11, wherein ~~depending on said LOD values and a parameter indicative of the manner of~~ ~~selecting a plurality of mipmap data,~~ said circuit for determining said filtering domain selects ~~any~~ one of <u>a</u> ~~said~~ plurality of mipmap data stored in a texture memory[[.]] <u>based</u> <u>on one of said first and second LOD values.</u>

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Claim 16. (currently amended): The image processing apparatus according to claim 11, wherein at least one of said first and second numbers are also related to a state of a flag. ~~said circuit for determining said filtering domain determines the number of texels required to acquire the texture color depending on a predetermined flag.~~

Claim 17. (cancel):

Claim 18. (currently amended): An ~~The~~ image processing apparatus ~~according to claim 11, wherein said circuit for acquiring said weighted average includes:~~ comprising:

a circuit for receiving, for a pixel, a set of texture coordinates comprising a first texture coordinate in a first dimension and a second texture coordinate in a second dimension, and a set of level of detail (LOD) values comprising a first LOD value in said first dimension and a second LOD value in said second dimension;

a circuit for determining, for said pixel, a filtering domain comprising a first number of texels along said first dimension and a second number of texels along said second dimension, in a texture comprising texels read from a texture memory;

a circuit for calculating a color calculated as a weighted average of color values from texels in said filtering domain, said circuit comprising:

a first circuit for acquiring a blend ratio and a decision flag in said filtering domain from said texture coordinates and said filtering domain;

a second circuit for deciding, by said decision flag, [[a]] texels to be excluded

from ~~the object for acquiring~~ said weighted average, out of said texels read from

said texture memory; and

a third circuit for acquiring the [[a]] weighted average of the texel ~~as the object~~ in

accordance with said blend ratio;[[.]] and

a circuit for pasting said texture color to said pixel;

wherein said first and second numbers are respectively related to said first and second

LOD values.

Claim 19. (currently amended): The image processing apparatus according to claim 18,

wherein said circuit for determining said filtering domain modifies said LOD values

with a predetermined parameter and determines a final filtering domain based on a

flag indicative of how many texels are to be used to acquire the texture color, and

wherein in case of selecting a mode of four texels by said flag indicative of how many

texels are to be used to acquire the texture color, said first circuit acquires said decision

flag corresponding[[ly]] to which one of four-divided areas of [[a]] texels positioned

centrally of nine texels contains the center of said filtering domain.

Claim 20. (original): The image processing apparatus according to claim 18, wherein

said circuit for determining said filtering domain modifies said LOD values with a

predetermined parameter and determines a final filtering domain based on a flag

indicative of how many texels are to be used to acquire the texture color, and

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wherein in case of selecting a mode of nine texels by said flag indicative of how many texels are to be used to acquire the texture color, said first circuit acquires said blend ratio and said decision flag correspondingly to four areas into which said nine texels are divided by lines passing through the center of said filtering domain, a first one of said four areas containing the upper left vertex of said filtering domain, a second one of said four areas containing the upper right vertex of said filtering domain, a third one of said four areas containing the lower left vertex of said filtering domain, and a fourth one of said four areas containing the lower right vertex of said filtering domain.

Claim 21. (original): The image processing apparatus according to claim 17, further comprising:

a circuit for creating an address for reading a texel from a texture RAM based on said texture coordinates and said modified LOD values; and

a circuit for sampling texels read from said texture RAM,

wherein said second circuit enters said texels sampled by said circuit for sampling texels, and rearranges corresponding texels based on said flag indicative of how many texels are to be used to acquire the texture color.